

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-11. (Canceled)

12. (Currently Amended) A method of driving a display comprising:

receiving an input signal having a first period corresponding to a number of lines in the display;

generating a detection reference signal to compare periods of the input signal and a pre-synchronizing signal;

determining whether the first period is less than a first reference period;

outputting a signal of a first state to a signal presence comparator only if the first period is less than the first reference period; ~~and~~

outputting the signal of the first state to a signal absence comparator only if the first period is beyond a range of the first reference period;

determining ~~the absence or~~ the presence of the input signal if the number of pulses of the signal of the first state outputted to the signal presence comparator is ~~not less~~ larger than a predetermined plural number during an input interval of the detection reference signal, being different from the signal of the first state, wherein each of the pulses is to be of the first state and continuously has same values; and

determining the absence of the input signal if the number of pulses of the signal of the first state outputted to the signal absence comparator is smaller than a predetermined plural number during an input interval of the detection reference signal, being different from the signal of the first state, wherein each of the pulses is to be of the first state and continuously has same values.

13. (Previously Presented) The method according to claim 13, wherein the receiving, generating, determining and outputting steps are repeated and determining if the first state is output a second time.

14. (Currently Amended) A method of driving a display comprising:

receiving an input signal having a first period corresponding to a number of lines in the display;

generating a detection reference signal to compare periods of the input signal and a pre-synchronizing signal;

determining whether the first period is greater than a first reference period;

outputting a signal of a first state to a signal presence comparator only if the first period is greater than the first reference period; ~~and~~

outputting the signal of the first state to a signal absence comparator only if the first period is beyond a range of the first reference period;

determining ~~the absence or~~ the presence of the input signal if the number of pulses of the signal of the first state outputted to the signal presence comparator is ~~not less~~ larger than a predetermined plural number during an input interval of the detection reference signal, being different from the signal of the first state, wherein each of the pulses is to be of the first state and continuously has same values; and

determining the absence of the input signal if the number of pulses of the signal of the first state outputted to the signal absence comparator is smaller than a predetermined plural number during an input interval of the detection reference signal, being different from the signal of the first state, wherein each of the pulses is to be of the first state and continuously has same values.

15. (Previously Presented) The method according to claim 14, wherein the receiving, generating, determining and outputting steps are repeated and determining if the first state is output a second time.

16. (Currently Amended) A method of driving a display comprising:

receiving an input signal having a first period corresponding to a number of lines in the display;

generating a detection reference signal to compare periods of the input signal and a pre-synchronizing signal;

determining whether the first period is less than a first reference period and greater than a second reference period;

outputting a signal of a first state to a signal presence comparator only if the first period is less than the first reference period and greater than the second reference period;

outputting the signal of the first state to a signal absence comparator only if the first period is beyond a range of the first reference period and the second reference period;

determining the presence ~~or absence~~ of the input signal if the number of pulses of the signal of the first state outputted to the signal presence comparator is ~~not less~~ larger than a predetermined plural number during an input interval of the detection reference signal, being different from the signal of the first state, wherein each of the pulses is to be of the first state and continuously has same values; and

determining the absence of the input signal if the number of pulses of the signal of the first state outputted to the signal absence comparator is smaller than a predetermined plural number during an input interval of the detection reference signal, being different from the signal of the first state, wherein each of the pulses is to be of the first state and continuously has same values.

17. (Previously Presented) The method according to claim 16, wherein the receiving, generating, determining and outputting steps are repeated and determining if the first state is output a second time.

18. (Withdrawn) A method of driving in a display:
receiving a vertical synchronization signal;
generating an intermediate signal from the vertical synchronization signal, the intermediate signal indicating whether the vertical synchronization signal has an error;
and
outputting a desired video signal to the display when the error is detected.

19. (Withdrawn) The method according to claim 18, wherein the desired video signal is an all black signal.

20. (Withdrawn) The method according to claim 18, wherein the desired video signal includes a color signal.

21. (Withdrawn) The method according to claim 18, wherein the desired video signal includes an image signal based on a previous image signal.

22. (Withdrawn) The method according to claim 18, wherein the desired video signal includes a message signal.

23. (Withdrawn) The method according to claim 18, wherein the desired video signal changes with time.

24. (Withdrawn) A method of driving in a display:
receiving a data enable signal;
generating an intermediate signal from the data enable signal, the intermediate signal indicating whether the data enable signal has an error; and
outputting a desired video signal to the display when the error is detected.

25. (Withdrawn) The method according to claim 24, wherein the desired video signal is an all black signal.

26. (Withdrawn) The method according to claim 24, wherein the desired video signal includes a color signal.

27. (Withdrawn) The method according to claim 24, wherein the desired video signal includes an image signal based on a previous image signal.

28. (Withdrawn) The method according to claim 24, wherein the desired video signal includes a message signal.

29. (Withdrawn) The method according to claim 24, wherein the desired video signal changes with time.

30. (Withdrawn) A liquid crystal display device including a timing controller provided with a signal presence determiner for detecting an application of an input signal from an interface, wherein said signal presence determiner comprising:

an oscillator for generating a reference clock having the same frequency as a horizontal synchronizing signal and a pre-synchronizing signal having the same frequency as a vertical synchronizing signal;

a period detector for comparing a data enable signal from the exterior thereof with the reference clock to output a period of the input signal with the aid of a detection reference signal and the pre-synchronizing signal;

a period comparator for comparing a period range between a desired maximum value and a desired minimum value of the input signal; and

signal presence/absence comparing means for determining a presence /absence of the input signal in response to a pulse number of the input signal detected within a period range between the maximum value and the minimum value during an application interval of the detection reference signal.

31. (Withdrawn) The liquid crystal display device as claimed in claim 30, wherein said period range between the maximum value and the minimum value of the period comparator can be controlled by a user.

32. (Withdrawn) The liquid crystal display device as claimed in claim 30, wherein said pulse number of the signal presence/ absence comparing means can be controlled by a user.

33. (Withdrawn) A method of driving a liquid crystal display device including a timing controller provided with a signal presence determiner for detecting an application of an input signal from an interface, said method comprising the steps of:

generating a reference clock having the same frequency as a horizontal synchronizing signal and a pre-synchronizing signal having the same frequency as a vertical synchronizing signal;

comparing a data enable signal from the exterior with the reference clock to output a period of the input signal with the aid of at detection reference signal and the pre-synchronizing signal;

comparing a period range between a desired maximum value and a desired minimum value of the input signal; and determining a presence/absence of the input signal in response to a pulse number of the input signal detected within a period range between the maximum value and the minimum value during an application interval of the detection reference signal.

34. (Withdrawn) The method as claimed in claim 33, wherein said period range between the maximum value and the minimum value can be controlled by a user.

35. (Withdrawn) The method as claimed in claim 33, wherein said pulse number of the input signal can be controlled by a user.